

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Amend claim 1 to read as follows:

1. A method of analyzing the wavefront of a light beam, comprising [the following steps of]:

- (a) placing a two-dimensional diffraction grating with rectangular meshing in a plane which is perpendicular to said light beam and which is optically conjugated with a plane of analysis of the wavefront, thereby multiplying an intensity function by a phase function,
 - (1) said intensity function defining a rectangular meshing of sub-pupils in said two-dimensional grating transmitting the light from said light beam to form a plurality of secondary beams disposed in accordance with said rectangular meshing, and
 - (2) said phase function introducing a phase shift between two adjacent secondary beams such that said two adjacent secondary beams are in phase opposition, and
- (b) creating and observing an image formed by interference between said secondary beams in a plane located at a predetermined distance from said perpendicular plane, deformations in said image being related to the slopes of the analyzed wavefront.

Amend allowable claim 4 to read as follows:

4. A system for analyzing the wavefront of a light beam, [said system] comprising:

- [-] (a) input optics optically conjugating a reference plane with a plane in which said wavefront is analyzed,
- [-] (b) a two-dimensional intensity grating with rectangular meshing in the reference plane, said intensity grating having an elementary intensity mesh in which an elementary intensity pattern is disposed and which is of length L in a first direction of said rectangular meshing and of width 1 in a second direction of said rectangular meshing,
- [-] (c) a two-dimensional phase grating with rectangular meshing in the reference plane, said phase grating having an elementary phase mesh in which an elementary phase pattern is disposed and which

A

- is of length $2L$ in the first direction of said rectangular meshing of said phase grating and of width $2l$ in the second direction of said rectangular meshing of said phase grating,
- [-] (d) said elementary phase meshes having sides coinciding with sides of said elementary intensity meshes, and said elementary phase pattern introducing a phase shift close to π (modulo 2π) between two secondary beams passing through two adjacent elementary intensity patterns, and
 - [-] (e) means for observing an image formed by interference between said secondary beams in a plane located at a predetermined distance from said reference plane, deformations in said image being related to the slope of the analyzed wavefront[,].

A